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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,932

03/26/2004

Reinhard Bruch

35690-502

6430

64046

7590

04/30/2007

MINTZ, LEVIN, COHN, FERRIS, GLOVSKY AND POPEO, P.C

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SAN DIEGO, CA 92121-3039

EXAMINER

HELLNER, MARK

ART UNIT

PAPER NUMBER

3663

MAIL DATE

DELIVERY MODE

04/30/2007

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/809,932

Applicant(s)

BRUCH ET AL.

Examiner

Mark Hellner

Art Unit

3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 4 - 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-11,23 and 26 is/are allowed.
- 6) ☒ Claim(s) 12-17,19-22,24 and 25 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-17, 19, 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rairoux et al ( reference AP on PTO form 1449 ) in view of Mourou et al ( 5,235,606 ) and Patzwald et al ( 7,012,698 ).

Figure 2 of Rairoux et al discloses a system for determining the constituents of a sample volume of the atmosphere, the system comprising: a femtosecond laser radiation source ( Titanium-Sapphire femtosecond laser system ) configured to emit laser radiation through a sample volume of the atmosphere; an optical unit (40 cm f/3 lens) configured to receive light backscattered from the sample volume; and a detection and analysis unit (spectrometer) coupled to the optical unit for analyzing the spectral signature of the sample volume.

A first difference between claim 12 and Rairoux et al is that the system provide terawatt levels of power.

Column 1, line 38 of Mourou et al is cited to show that Ti:Sapphire sources of ultrashort pulses of light were capable of terawatt power at the time of the present application.

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It would have been obvious to have used terawatt power in the invention of Rairoux et al when seeking to improve signal resolution.

A second difference between claim 12 and Rairoux et al is that the laser source emit at 267nm.

Patzwald et al is cited to show that the conventional wavelength range for spectrometer detection is from 200nm to 2400nm.

As a result, 267nm would have been recognized by the skilled artisan as an obvious property for the laser source of Rairoux et al.

Claim 22 is rejected for the reasons applied to claim 12.

Claims 24 and 25 add the further limitations of 2 spectrometers and 2 photomultipliers.

These elements are disclosed by elements (8) and (9) of Patzwald et al as being known structure of spectrometers used for detection of light backscattered from a sample.

Claim 13 recites known aspects of a sample volume.

Claims 14 – 16 recite the properties of the CPA of Mourou et al.

Claim 17 is met by page 575 of Rairoux et al which states that their laser operate at 790nm.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rairoux et al, Mourou et al and Patzwald et al as applied to claim 12 above, and further in view of McGrew et al.

Claim 20 read on the detection of a complex molecule.

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McGrew et al teaches that it was known at the time of the present application to have used pulsed laser sources to identify molecules.

It would have been obvious to have applied the teachings of McGrew et al to the device of Mourou et al when seeking to expand it's detection ability, thus producing claim 20.

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Allowable Subject Matter***

Claims 1, 2, 4-11, 23 and 26 are allowed.

Applicant's arguments with respect to claims 12-17, 19-22, 24 and 25 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Mark Hellner at telephone number 571 272 6981.

Mark Hellner

Primary Examiner

AU 3663

A handwritten signature in black ink that reads "Mark Hellner". The signature is written in a cursive, flowing style.